DOCUMENT RESUME

ED 240 470 CG 017 302

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TITLE Educational Seduction: An Attributional Analysis.
PUB DATE Aug 83
NOTE 15p.; Paper presented at the Annual Convention of the American Psychological Association (91st, Anaheim, CA, August 26-30, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Attribution Theory; Classroom Communication; College Students; *Expressive Language; Foreign Countries; Higher Education; Locus of Control; Metacognition; Self Esteem; Student Evaluation of Teacher Performance; Student Motivation; Student Teacher Relationship; *Teacher Behavior; *Teacher Effectiveness; Teacher Influence; Teaching Styles
IDENTIFIERS *Canada

ABSTRACT

Educational seduction, in which a charismatic, entertaining instructor obtains favorable student ratings while presenting insufficient lecture content, threatens the validity of student ratings and teaching effectiveness research. To examine the effects of one educational seduction variable, instructor expressiveness, on student achievement attributions and affective reactions, four studies (2 in 1980-81; 2 in 1981-82) were conducted, in which 532, 229, 220, and 165 male and female college students viewed two 25-minute videotaped lectures, manipulated for high or low instructor expressiveness. Subsequently, the students took an achievement test on the material and completed two profiles assessing attributions, achievement responsibility, and emotional response. An analysis of the results showed that instructor expressiveness had a consistent and moderate to large effect on student achievement across all four studies. The high expressive instructor produced a greater internal mastery orientation in students and enhanced students' confidence in their performance. The findings raise important questions about whether expressiveness affects other cognitive processes such as expectations or motivation. (BL)

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# Educational Seduction: An Attributional Analysis

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Running Head: EDUCATIONAL SEDUCTION

CG 017302

Presented at the annual meeting of the American Psychological Association, Anaheim, CA., August, 1983.

## Abstract

Educational seduction has recently attracted considerable interest among teaching effectiveness researchers (Abrami, Leventhal, & Perry, 1982). The research has addressed primarily the validity of student ratings, however Perry (1982) has argued that the phenomenon has broader implications for classroom dynamics. It would be useful, therefore, to investigate instructor expressiveness effects on a broader basis than solely ratings and achievement. Accordingly, expressiveness effects on student attributions were investigated in four studies using procedures outlined in Abrami, Leventhal, and Perry (1982). Multivariate and discriminant function analyses indicated that expressiveness had a main effect on causal attributions. The high expressive instructor produced a greater internal mastery orientation in students and enhanced student confidence in their performance.

Educational Seduction: An Attributional Analysis

Educational seduction has recently attracted considerable interest among teaching effectiveness researchers and those concerned with the validty of student ratings (e.g., Abrami, Leventhal, & Perry, 1982; Meier & Feldhusen, 1979; Perry, Abrami & Leventhal, 1979; Williams & Ware, 1976, 1977). Educational seduction refers to the situation in which a charismatic, entertaining instructor can obtain favorable ratings while presenting insufficient lecture content. The phenomenon represents a potential threat to the validity of student ratings because the students consider the instruction to be of high quality in spite of learning little content. The research has primarily addressed the validity issue (e.g., Perry et al., 1979; Williams & Ware, 1976), however, Perry (1982) has argued that the phenomenon has broader implications for classroom dynamics. That is, an expressive or charismatic instructor may influence other student outcomes such as attributions, perceptions of control, or emotional responses. Unfortunately, little is known regarding these effects because previous research has focused primarily on student ratings and achievement.

The purpose of the following research was to examine the effects of one educational seduction variable, instructor expressiveness, on causal attributions and affective reactions. Weiner (1974, 1976, 1979) has developed an attributional theory of achievement motivation which focuses on what happens as students engage in achievement behavior. According to the theory students define an achievement outcome as a success or failure then make cognitive attributions to explain the causes for success or failure. In turn, the attributions influence students' affective reactions, expectations, self-esteem and achievement performance. For example, the model predicts that students attributing their academic success

to high effort or high ability will feel proud and competent about doing well and will try hard in the future because they expect to do well. In contrast, students who attribute their success to luck will feel less pride and will be less persistent in the future because their expectations are low.

There are potentially many causal explanations but people tend to make use of a finite set of categories. Weiner and his associates (e.g., Weiner, 1974; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971) have identified four causes most often used to interpret achievement-related outcomes: ability, effort, test difficulty, and luck. These attributions generally fall within three dimensions of causality, locus of causality (internal, external), stability (stable, unstable) and controllability (controllable, uncontrollable). Specific causal attributions related to these dimensions can be used to assess how students perceive their performance. For example, ability is an internal, stable, and uncontrollable cause, while effort is an internal, unstable, and controllable cause. Laboratory and classroom research reveals that effort followed by ability are the two primary causes used to explain achievement outcomes. Thus, students tend to make internal attributions related to their perceptions of control.

In the present research two profiles were constructed to analyze student attributional processes and emotional responses following contact with varying levels of instructor expressiveness. Data were used from four studies in which expressiveness was manipulated. In all studies students reported their attributional and emotional reactions to an achievement test they wrote following the lecture presentation in which expressiveness was manipulated. The four attributional causes, ability, effort, test difficulty, and luck, were grouped together to form an attributional profile describing student explanations of their achievement performance.

A second profile was constructed to measure two other aspects of a student's academic performance: emotional arousal and achievement responsibility. Weiner (1979) suggests that emotional arousal follows achievement feedback and affects subsequent motivation and behavior. Failure produces feelings of shame, and success, pride, both of which are postulated to influence a student's expectations about subsequent achievement. Two bipolar adjectives were used to assess the student's emotional response to their achievement: competent/incompetent and either confident/helpless or stress/no stress. Achievement responsibility was examined in terms of teacher and student contributions to a student's achievement. By constructing the two separate profiles a student's emotional reaction and assignment of the teacher's and the student's responsibility for performance can be assessed independently from the attributional profile.

Causal attributions provide a useful method for studying the cognitive effects of instructor expressiveness in greater detail. Although considerable empirical evidence has accumulated regarding expressiveness effects on student ratings and achievement, little is known about its effects on cognitive functioning. Causal attributions generate a description of such effects, and provide a linking with other cognitive processes such as expectations, self-esteem, motivation, etc. Thus, if high expressiveness enhances a student's internality or self-confidence, it has implications for a variety of classroom teaching-learning activities.

## Method

The method is based on four experimental studies which included instructor expressiveness and contingency of test feedback as core independent variables along with several other variables such as student incentive, student internality

or amount of contingency exposure, depending on the study. Due to space limitations and the focus of this paper only instructor expressiveness will be discussed as a main effect on student achievement, attributions, and affect. (See Dickens & Perry, 1983, for a more detailed description of the four studies and results).

## Subjects

The subjects were male and female introductory students at the University of Manitoba who volunteered to participate in one of four studies. Two of the studies were conducted in the 1980-81 academic year and the other two were conducted in 1981-82. No subject participated in more than one study. Sample sizes of the studies were 532,229,220, and 165 in chronological order. Subjects signed up for a session and experimental conditions were randomly assigned to sessions. All students received credit toward a course requirement.

## Materials

Videotapes. Two 25-minute color videotape lectures were used which differed systematically in instructor expressiveness (low, high). A psychology professor made a presentation from actual lecture notes on topics that were not discussed in the subjects' courses (sex role stereotypes, repression). Expressiveness was defined in terms of physical movement, voice inflection, eye contact, and humor: decreased or increased frequencies of these behaviors represented the low and high expressiveness conditions. Lecture content was equated across expressiveness conditions by selecting high content videotapes developed in previous research by Perry, Abrami, and Leventhal (1979). Lecture content referred to the number of teaching points presented during the videotape presentation, with the low content lecture having one-half the points of the high content lecture.

Dependent Measures. The nine measures collected after the lecture included an achievement test, and two profiles relating to the postlecture achievement test. The test involved 30 multiple choice questions based on the lecture content and was designed to assess both retention and conceptual understanding. In all four studies, the first profile was an attributional profile containing four items: ability, effort, test difficulty, luck. Students rated the extent to which each factor determined their achievement test performance (1 = Not at all, 10 = Entirely). The second profile contained four additional items related to achievement responsibility and emotional response. Two items measured the degree to which the student and the teacher influenced the test performance (1 = Not at all, 10 = Entirely), and two 10-point bipolar adjectives measured the student's emotional response to the test. In two studies the bipolar adjectives were: competent/incompetent and helpless/confident and in the other two studies the adjective pairs were helpless/confident and stress/no stress.

## Procedure

All subjects were informed, that they would observe a videotaped lecture and then write a test on it. One of two lectures varying in expressiveness (low, high) was presented on an Advent 1000A Videobeam Color Projection Unit projecting a seven-foot color image. All subjects were provided with writing materials to take notes during the lecture. After the lecture the subjects completed the dependent measures in the following order: achievement test, profile 1 and 2. They were debriefed and their questions answered.

## Results and Discussion

Analyses of variance indicated that instructor expressiveness had a consistent and moderate to large effect on student achievement across all four studies. The value of omega-squared ranged from .03 to .15 showing that

achievement accounted for up to 15 percent of achievement variance. This can be considered fairly substantial because in each of the studies other independent variables were in the design. Omega-sqared is the ratio of treatment variance to total variance, therefore, the value of the ratio will be reduced by variance produced by the other variables in the design (Hays, 1981). The high expressive instructor produced significantly higher achievement than the low expressive instructor. These results are consistent with previous findings (Abrami, Leventhal, & Perry, 1982), and provide a context within which to interpret the attribution data.

Multivariate analyses of variance were used to determine expressiveness effects on the two profiles, followed by discriminant analyses. The discriminant functions provide information on how the attributions are interrelated and how the profile as a whole accounts for group separation between the low and high expressive conditions. Expressiveness had a significant multivariate effect on both profiles.

The results of the discriminant function analysis on profile 1 across all studies are presented in Table 1. The numbers in the upper half of the table

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Insert Table 1 about here

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are structure correlations which indicate how much each attribution is correlated to the discriminant function. These are similar to factor loadings in factor analysis; i.e., the greater the correlation, the more the attribution measure is related to the function, or carries the same information as the function (Klecka, 1981). For all studies the discriminant function was characterized

by high, positive loadings on ability and moderate to high, positive loadings on effort combined with negative loadings on the external dimension of luck. This suggests an internal, mastery orientation with higher group centroids implying greater feelings of internality.

The numbers in the lower half of Table 1 are the group centroids. Centroids can be thought of as "multivariate means" of the attributional profile for the two expressiveness groups. According to the centroids, in all studies the high expressive instructor produced a greater internal mastery orientation than the low expressive instructor. Thus, students took more personal responsibility (internal locus) for their achievement when the instructor lectured in a highly expressive fashion.

For the second profile, expressive had a significant multivariate effect in three of the four studies. The results of the discriminant analysis for the expressive effect on profile 2 are presented in Table 2. In the first two

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Insert Table 2 about here

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studies, the function was characterized by high loadings on confidence and competency, coupled with a moderate loading on the teacher dimension. This suggests feelings of competency attributable to the instructor. That is, the high expressive instructor is producing greater feelings of competency than the low expressive instructor. In the third study the function was characterized as feelings of self-confidence rather than externalized competency. Again, high expressiveness is enhancing student confidence although in this case the locus is the student.

The results provide a detailed description of instructor expressiveness

effects on student outcomes. Two conclusions can be drawn from the results. First, expressiveness affects causal attributions and affect along with student achievement. This has implications for how expressiveness may actually influence achievement by affecting student mastery and confidence. The more expressive instructor consistently produced better performance, more internal responsibility for outcomes, and greater feelings of confidence and competency. In contrast, students exposed to the low expressive instructor felt less confidence and took less personal responsibility for their performance. A low expressive and boring instructor may be actually producing feelings of helplessness in students. Moreover, the results raise important questions about whether expressiveness affects other cognitive processes such as expectations and motivation.

The second point is that the results were consistent across four studies even though additional variables were present in each of the studies. The consistency of results substantiates the existence of expressiveness effects on attributions and affect. Much of the teaching effectiveness research has examined the effects of teaching behaviors such as expressiveness on performance and ratings, but has not focused on causal attributions to a great extent. The consistency of the findings indicate that further research is needed to determine the effects of other teaching behaviors on attributions and other cognitive processes.

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Table 1

Expressiveness Multivariate Results for Profile 1

| Attributions | Study 1 | Study 2 | Study 3 | Study 4 |
|---|---|---|---|---|
| Ability | .61 | .74 | .94 | .96 |
| Effort | .58 | .44 | .36 | .62 |
| Test Difficulty | .29 | .38 | .09 | .60 |
| Luck | -.82 | -.80 | -.33 | -.25 |
| **Group Centroids** | | | | |
| Low Expressive | .62 | .35 | 1.17 | 1.53 |
| High Expressive | 1.17 | 1.04 | 2.04 | 2.15 |

Table 2

Expressiveness Multivariate Results for Profile 2

| Measures | Study 1 | Study 2 | Measures | Study 3 | Study 4 |
|---|---|---|---|---|---|
| Self | .21 | .22 | Self | .53 | Not Significant |
| Teacher | .45 | .48 | Teacher | -.30 | |
| Competent/ Incompetent | -.51 | -.63 | Stress/ No Stress | .33 | |
| Helpless/ Confident | .96 | .84 | Helpless/ Confident | .86 | |
| **Group Centroids** | | | | | |
| Low Expressiveness | 1.61 | 1.65 | | 1.76 | - |
| High Expressiveness | 1.96 | 2.63 | | 2.48 | - |